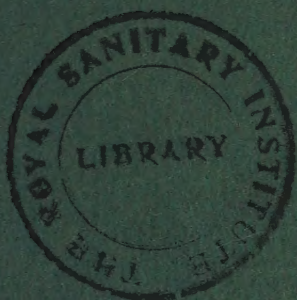




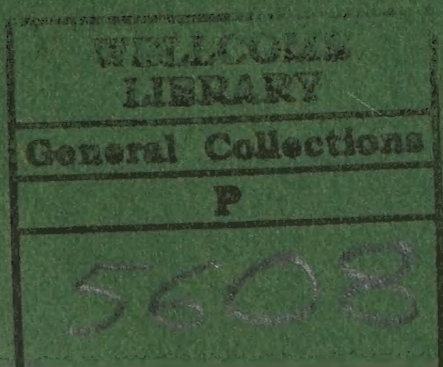
THE
LIFE AND DOCTRINE
OF
SIR EDWIN CHADWICK



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THE LIFE AND DOCTRINE

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SIR EDWIN CHADWICK

A lecture delivered at University College, 1924.

When invited by your Provost to speak at University College on Sir Edwin Chadwick, his life and work, the attractiveness of the subject chosen and the appropriateness of the *locus in quo* overcame my sense of conscious ineptitude for the graciously allotted task. As chairman, for the time being, of the Trust which bears the name of Chadwick and seeks eponomously to perpetuate his memory and his doctrine, I have dutifully attempted, on more than one occasion, to relate to audiences less august than this the story of his chequered career, whereby he earned the hatred and hostility of many of his contemporaries, the gratitude and veneration of posterity, and his final canonisation as the Father of British Sanitary Science.

As secretary to, and disciple of, Jeremy Bentham, in the later years of the utilitarian sage, Sir Edwin Chadwick, like his master, is intimately associated with this place. Bentham, for whose mortal remains your museum has been a mausoleum and whose counterfeit presentment has recently been enshrined in fresco within your dome, was one of the remarkable group of men who in the 'twenties and 'thirties of last century strove to found a University of London. The great philosopher bequeathed his library in part to this College and in part to Chadwick, while under the Trust established by the latter your professorship of hygiene has received substantial support and appropriately cherishes his memory.

Sir Edwin Chadwick belonged to the noble army of eminent Victorians, whose times and tendencies it is now the fashion to belittle and besmirch, though his early activities in association with Bentham, Grote, and the Mills, father and son, commenced some years before the accession of Queen Victoria. When that reign began, as Sir John Simon truly observes, "there existed hardly a glimmer of intelligent public interest in matters affecting the public health. The changes that came in quick succession during the following decade (1838-1848) were," according to the same eloquent chronicler of English sanitary institutions, "directly due to the zealous labours of one eminent public servant, Sir Edwin Chadwick." The younger Mill, writing in 1835, lamented at that time the aridity of English contemporary thought—"its lack of interest in the great problems of man's life and nature . . . the nature and principles of human society and the history of philosophy of civilisation."

Even the Radical Benthamite creed, which J. S. Mill and his father did so much to promulgate, while seeking to raise the lot of the worker

and urging the physical betterment of mankind, was nevertheless not deeply concerned with such metaphysical problems as the origin of life or the cognate question of the intimate pathology of contagion. Content with improving the material well-being of man as the potent panacea for all physical, mental, and moral ills, it discounted the theologians' ascription of pestilences to the intervention of the Infinitely Great, and dismissed as of small account the microscopists' assertion of the pathogenicity of the Infinitely Little. Happiness was their goal, physical well-being and means, and filth the enemy to be vanquished by personal and municipal cleanliness.

Chadwick's Part in the Rise of Sanitary Science.

The nineteenth century, which gave us Pasteur and Lister and the dawn of bacteriology, had yet earlier witnessed the birth, or perhaps one should say the *renaissance*, of sanitary science, as expounded by Chadwick and his co-workers. While laboratory investigators were claiming to identify one after another the vegetal or animal parasites proclaimed as the causes of zymotic and other diseases, the municipal engineer, the sanitary officers, local administrators, and social workers had been preaching the gospel of cleanly living, improving water-supplies and refuse removal, bettering the housing of the working classes, and claiming that to such efforts were due the reduction in the death-rate and the restriction or extinction of pestilences. These filth diseases, they said, would vanish before the application of what Chadwick had promulgated as his "sanitary idea."

Apart from minor matters, mostly of ephemeral interest, Chadwick's teaching is not without its message for us to-day. Some at any rate of our modern sanitarians and sociologists seem to lack the very qualities in which Chadwick was pre-eminent. They have not the massive grasp, the many-sided method of approach, the hold on totality which he so conspicuously possessed. The modern tendency to over-specialise, to carry on research in water-tight compartments, to hunt the little game, to restrict environment to laboratory limitations instead of ranging free o'er all the field of man, to over-accentuate the microscopic, or shall we say the ultra-microscopic, to "tithe the mint and anise and cummin," and omit the weightier matters included in, but not exhausted by, the word "environment" were no part of the moral outlook or mental outfit of Edwin Chadwick. Even Sir Benjamin Ward Richardson, who had so much in common with his hero, alike in heart and head, found Chadwick's personality defiant of ordinary classification and not easy to analyse—"he treated" he said, "all professions with equal freedom, when any subject connected with his own pursuits was under discussion; so that they who listened often wondered, when they were not intimate with him, what his own profession might be."

It was fortunate, indeed, that in the evening of his long life Chadwick found in Richardson, my old friend and colleague, a biographer after his own heart, who under his hero's eye made a worthy record of his varied beneficent activities. In 1887 Richardson published in two volumes "*The Health of Nations*," a review of the work of Edwin Chadwick with a biographical dissertation. Titularly, the work is reminiscent of, and perhaps conceived as a palinode upon, that other work, its predecessor by more than a century, so much talked of and so little read, "*The Wealth of Nations*" by Adam Smith. Each is significant of the century to which it belonged. The economics of health arrived upon the scene later than the economics of wealth, and it is perhaps the destiny of twentieth-century legislators and administrators to harmonise the competing claims of the one upon the other. Articles, reviews, reports, memoranda, blue-books flowed in rapid succession for

three score years from the facile pen of Edwin Chadwick, and it is well to take down, dust, and re-peruse them, and to reflect on them in the light of twentieth-century sanitary and social science. No one can rise from that task without a vivid impression of their sanity of judgment, their modernity and presage, their large and liberal outlook, their insight and foresight, as well as of the breadth of view and the humanity of the philosophy which inspires them.

"The historian" says Richardson, "will feel no doubt that in this man some peculiar interest was embodied; that the man did some work or works which exerted a striking influence over his time, and caused great changes in its social system; and yet there will be a haze about him which will be scarcely penetrable. The man did and did not. He made laws? Yes. Was he then a legislator? No, not even a member out of office in the lower House. He did something for sanitary improvements? Yes. Was he then a doctor? No, on the contrary, he looked on them as necessary evils, and as not very likely to last." He would, indeed, have been staggered if he had lived to see the day when a State Medical Service was almost on the cards; while his amiable anticipation that "doctors were not very likely to last" was presumably based upon a too roseate expectation of the early advent of an epoch when, thanks to the realisation of his sanitary ideals, doctors would neither be able to live—nor die.

Chadwick's Early Life and Environment.

Chadwick's long life of 90 years spanned the nineteenth century with the exception of its concluding decade. He and the century were in their teens together, for he was born at Longsight, near Manchester, on January 24th, 1800. His times, up-bringing and early associations combined to mould this Lancashire lad into the indomitable and indefatigable social and sanitary reformer for which occasion was so ripe. Ancestry also doubtless played its part in predestinating and fashioning this earnest apostle of "environment." From his grandfather Andrew, who lived to be 96, the friend of John Wesley, he derived, besides a title to longevity, something of the spirit of "the new philanthropy," as Green called it, which sprang from the Methodist revival, and with which the labours of John Howard, Wilberforce, and Samuel Romilly were instinct. From his father, the tutor of John Dalton, he inherited a love of natural history and philosophy, as well as a leaning towards Liberal views and literary pursuit. His mother he "lost too early for the frequent tear," and before he was ten years old he migrated with his father to London, wither the latter had been called to fill the editorial chair of the *Statesman*, a leading Liberal paper of that time.

In London young Chadwick devoted himself to the study of modern languages; he attended no public school except preparatory ones at Longsight and Stockport, and entered for the Bar at the Inner Temple; but with his father's example before him, journalism claimed his early attention. While still a law student he wrote for the *Morning Herald*, the *London Review*, and the *Westminster*, then the vigorous organ of the philosophic Radicals, the Mills, father and son, and Bentham. Articles from Chadwick's pen on "Life Assurance" and "Public Charities in France" stressed the potency of environment on health, and exhibited in embryo his "sanitary idea," which afterwards germinated and developed. An essay on "Preventive Police" attracted especially the attention of Bentham, secured his patronage and friendship, and introduced him into the brilliant circle of the devoted disciples who surrounded the utilitarian philosopher in his closing years.

Bentham, who was born in 1748, three years after the death of Walpole, died the day before the Great Reform Bill of 1832 received the

Royal Assent. His personality and doctrine made a deep impression on his contemporaries; his breadth of view and prodigious range of knowledge commanded the veneration and homage of his co-workers and have left their mark alike on morals and on legislation. He had been in early life the friend of Adam Smith, the Wesleys, Mirabeau, and William Pitt; later James Mill, Samuel Romilly, and Etienne Dumont were his comrades and disciples, while in the evening of his life Chadwick and Dr. Southwood Smith resided with him at his hermitage at Queen's Gate, Westminster, and acted as secretaries during the last three years of the octogenarian sage. The subsequent careers of these two notable men afforded indubitable evidence that they had been with Bentham. Southwood Smith it was who performed the quaint last rites when in strict accord with the Master's directions he delivered a funeral *éloge* over Bentham's dissected corpse in the West Street School of Anatomy, amid an awful thunderstorm. Chadwick, less acquiescent, had declined Bentham's offer of an assured income if he would become the propagandist of the utilitarian philosophy. However, besides a share of his library, the Master bequeathed him a legacy. Chadwick had no doubt acquired from Bentham a breadth of view and basic notions of a juridical system which powerfully fomented within him the forces of his developing personality. Before he was 30 he had already become possessed of, or rather possessed by, his "sanitary idea" which his sympathetic biographer, Richardson, thus defined or described—"It was, that man could, by getting at first principles, and by aiming at causes which affect health, mould life altogether into its natural cast, and beat what had hitherto been accepted as fate by getting behind fate itself, and suppressing the forces which led up to it at their prime source."

The Beginning of his Life's Work.

He proceeded to study typhus fever amid the rookeries of East London and nearly fell a victim to it. He became intimate with John Stuart Mill, and it is said laid unsuccessful siege to the heart and hand of his sister Harriet. Mill introduced him to Nassau William Senior, and through him in 1832 he received the appointment of Assistant Commissioner for the inquiry into the Poor-law which Lord Grey's Government had just resolved to initiate under the chairmanship of the learned and large-hearted Bishop Blomfield. From the vantage ground of this relatively subordinate position Chadwick was started on what was destined to be his life's work. Duty and faculty were united in the enterprise. All sources of information were, with alacrity, pressed into the service of the inquiry. He made investigations on the spot, he saw with his eyes and not with his ears; he indited questionnaires. His reports became models of what sanitary surveys ought to be, and statistical detail and argument formed a conspicuous element in the case he presented to the Commission to which he was later added as a member. Their report disclosed the abuses which had grown up under Acts which purported to amend, but more often had marred, the principles of Poor-law codified in the celebrated 43rd of Elizabeth (1601) c. 2, which put into statutory form what was previously common law practice. It appeared that many justices of their own sweet will ordered relief to any who applied to them independently of the parochial overseers and vestries, and later had purported to fix scales of wages according to the price of wheat and the number in family. The arbitrary law of settlement, denounced by Adam Smith and Burke, continued to tie the labourer to the soil; the burden of rates had become intolerable; pauperism had increased by leaps and bounds, and in the distressful times of the first quarter of last century some £7,000,000 a year were being squandered by 16,500 local authorities in manufacturing able-

bodied paupers, without check or guidance from any central authority. The report of the Commissioners, issued in February, 1834, mainly drafted by Chadwick, though claimed by some as the work of Senior, is described by Mr. Fowler in his volume on "the Poor-law" as "perhaps the most remarkable and startling document to be found in the whole range of English, perhaps, indeed, of all, social history." It recommended the formation of a central board to control administration and to prescribe uniform regulations as to relief, while local unions of parishes were to provide workhouses, administer relief, educate and apprentice children, levy rates, appoint paid officers, and render uniform accounts, under central supervision. Relief to able-bodied paupers was to be declared illegal. The law of settlement was to be relaxed. The "principles" of that report, and of the Poor-law Amendment Act of 1834, which speedily followed it, are often referred to, but are not easily disentangled from the copious volumes of the one or the numerous sections of the other. Those principles, alike in the ideals to be aimed at and the machinery to be employed, have been endorsed by the Royal Commission on the Poor-laws which reported in 1909. That Commission reasserted the fundamental principle of the Poor-law Amendment Act of 1834 to be "that the situation of the able-bodied pauper should be, really or apparently, less eligible than that of the independent labourer of the lower class." The epitomised version of that formula—viz., "the workhouse test"—was, however, never approved or adopted by Chadwick. As regards machinery, 16,500 parishes were consolidated into 660 unions employing some 17,000 paid officers and working under the control of a central board of three Commissioners. The eleemosynary duties of the overseers and justices passed into innocuous desuetude; wasteful expenditure was checked and rates were accordingly reduced.

Paving the Way.

The first three Commissioners, with Chadwick as their most energetic secretary, at once proceeded by rules and orders to regulate outdoor relief, to make proper classification of the infirm, the aged, the destitute, the lunatic, the children, and the vagrant, and to prescribe their respective appropriate treatment—in modern phraseology "to break up the Poor-law." In 1847 the original Commission was dissolved and replaced by a new body including ex-officio Ministers of the Crown, and thus came to be represented in Parliament. In 1849 it became the Poor-law Board, and in 1871 the Local Government Board, whose recent extinction led to the Ministry of Health in 1919.

Chadwick had, indeed, adumbrated the appointment of a Minister of Health and a Minister of Education more than 50 years ago, though it may perhaps be doubted whether he would have been altogether satisfied with those departments as we have them to-day.

The first Commissioners under the Poor-law Act of 1834 were Sir Thomas Frankland Lewis, J. G. Shaw-Lefevre, and Sir George Nicholls, who received £2,000 a year each, while their secretary, Chadwick, received little more than half that sum and did more than three-quarters of the work. Lewis and Shaw-Lefevre gave tepid support only to their secretary, and Nicholls was soon despatched to Ireland. Later on Sir Francis Head and Sir George Cornwall Lewis replaced the first Commissioners and acute internal dissensions rent the Board. Lewis developed a bitter antipathy to Chadwick and in 1845 matters came to a crisis over a squabble in connection with the Andover Workhouse. A committee, of which Disraeli was a member, was appointed to inquire into the affair by the Commons, against the wish of the Government, and reported in vindication of Chadwick and against the Commissioners,

who accordingly resigned in 1847. The Press had, from the first, teemed with criticism of the Board—they were “the three Kings of Somerset House”—“the Pinchpauper triumvirate,” while Chadwick was held up to obloquy by *The Times* as “that juvenile theorist of 34—the Sucking Solon of the Benthamite creed.” Other work was nevertheless soon found for his indomitable energy. Even while working on the report of the Poor-law Commission and for the Board as secretary he had undertaken other investigations. In 1833 the grim tragedy of juvenile labour in factories had, by a single vote in the Commons, been referred to a Commission, for which the earlier efforts of Sir Robert Peel, the full-blooded denunciations of Richard Oastler, and the sober arguments of Mr. Sadler had prepared the ground. Thomas Tooke, Southwood Smith, and Chadwick were the Commission, and with alacrity they inquired and reported.

Legislation, however, lingered, since the Lords resented what they described as an insidious attempt to introduce by a side-wind universal national education. The half-time system, of which Chadwick was the proud parent, the ten-hours day, the institution of Government Factory Inspectors, and the recognition that injuries of employees were a legitimate charge on an industry, may be regarded as the early or the later fruit of the Commission of 1833.

A Practical Idealist.

In 1834 a committee was appointed, amid derisive levity in the Commons, to investigate the causes of intemperance, under the chairmanship of Mr. J. Silk Buckingham. Chadwick gave evidence before it, declaring that intemperance produced pauperism, and that outdoor relief went largely to the gin-shops, the number of which was grossly excessive. He advocated the provision of playgrounds, the opening of museums and art galleries on Sundays, the encouragement of coffee taverns, and the substitution of light wines for strong alcoholic drinks. In 1838 Chadwick was one of a Commission of three to devise the establishment of a constabulary police force. His colleagues were Sir Charles Rowan and Sir Charles Shaw-Lefevre, afterwards Speaker and later Lord Eversley. “Preventive Police,” as I have said, had been the subject of a suggestive article by Chadwick in 1829, the year in which Sir Robert Peel’s Police Act reformed the London Service and gave us “Peelers” or “Bobbies” in place of the old Charlies of the Dogberry type. Chadwick insisted upon certainty of punishment, rather than its severity, as preventive of crime. He stressed the perils of hoarding and the prudence of banking money. He preferred police to military for preventing and suppressing riots, and in a report to the Society of Arts in 1876 he urged the employment of the police in the extinction of fires. Almost his last essay was one stressing the value of the cycle in facilitating the mobility of the police.

In the first year of Queen Victoria’s reign, through Chadwick’s inspiration and Lord Lyndhurst’s influence, civil registration of births, marriages, and deaths was enacted despite the opposition of churchmen and dissenters, who appeared to regard the reform with much the same repugnance as secular education. It was also at his suggestion that Dr. William Farr (1807-1883), the author of “Vital Statistics” in McCulloch’s “British Empire,” was appointed compiler of abstracts in the office of the Registrar-General. For 40 years he held that subordinate post and was eminently qualified for appointment to the higher position when it fell vacant in 1879, but political patronage decided otherwise. It is impossible to over-estimate the value and far-reaching effects of Farr’s work; by accurate and comparative death-rates, general,

infantile, and zymotic, he provided a standard and measure of the influence of those very sanitary measures which his friend Chadwick was so vigorously preaching and practising. The influence was world-wide, and in the language of figures Farr's work speaks in every national and local health report that sees the light to-day.

The year 1839 witnesses the registration of Chadwick's own marriage to Miss Rachel Kennedy, of Manchester; and he transferred his residence from Orme Square, Bayswater, to Stanhope Street, Hyde Park.

Sanitary Reform.

It was from the Poor-law Board of Commissioners, or rather from the brains of their indomitable secretary, that the first Sanitary Commission emanated in 1838, which led up to the great "inquiry into the sanitary condition of the labouring population of Great Britain" of 1842, with which his name is identified, and on which his reputation as a sanitary reformer largely rests. When an epidemic of fever ravaged Whitechapel and Bethnal Green in 1838 he had set Dr. James Kay and Dr. Neil Arnott to report "on the prevalence of certain physical causes of fever in the Metropolis," and Dr. Southwood Smith to investigate personally "the removal of sanitary regulations of the physical causes of sickness and mortality" in some 20 metropolitan unions. It was their reports which induced Lord John Russell to secure the issue of an order by the Queen for a larger inquiry, to cover the whole of England and Wales. The report of 1842, admittedly Chadwick's work, though not bearing his name, has become a classic in the history of British sanitary science.

Modern students of public health would find it difficult to visualise the social misery and mal-hygiene which prevailed among the masses of the people at that date. As Simon points out, when Queen Victoria came to the throne, apart from the futile Quarantine Laws, and an annual vote to the Vaccine Board, the Central Government had nothing to say in regard to the public health, and local authorities had but the most indefinite relation to it. Medicine was now summoned to the service of the State, and the engineer and architect to the aid of the municipality. The first great cholera epidemic which struck Great Britain in 1831 had caused a rude awakening, and served to draw attention to the conditions under which the poor lived and died in large urban communities. The Lords of the Council had indeed in that year issued rules and regulations similar to those drafted by Mead in 1720 and promulgated a form of prayer to be used throughout the land. They also set up provisionally a central board, vested with such sanctions as Orders in Council under the Quarantine Acts could confer, which later were hastily endorsed by temporary statutes. It was not, however, until the Chadwick régime that the potency of filth in air, water, food, soil, and surroundings became recognised in preparing the breeding-ground for epidemics, and sanitary neglect began to be denounced as the nurse, if not the parent, of contagious fevers.

Chadwick's monumental "Survey into the Sanitary Condition of the Labouring Classes of Great Britain" was the final blow to the "letting-things-alone" party in high places, and led to the institution of local medical officers of health. When he and his colleagues visited the fever-stricken homes of the poorest in our large cities, he said, "it was frequently declared by the inmates that they had never for many years witnessed the approach or presence of persons of that condition near them." "The duty of visiting loathsome abodes, amidst close atmospheres compounded of smoke and offensive odours, and everything revolting to the senses is a duty," he said, "which can

only be expected to be regularly performed under much stronger motives than can commonly be imposed on honorary officers The descriptions given by Howard of the worst prisons he visited in England (which, he states, were the worst he had seen in Europe) were exceeded in every wynd in Edinburgh and Glasgow inspected by Dr. Arnott and myself in company with the municipal officers of those cities. More filth, worse physical suffering, and moral disorder than Howard describes as affecting the prisoners, are to be found amongst the cellar population of the working people of Liverpool, Manchester, or Leeds, and in large portions of the metropolis." Deaths from fever and smallpox were, he found, almost exclusively confined to the worst parts of the towns. In an epidemic of the latter in Bath in 1837, which carried off over three hundred persons, scarcely a single gentleman and only two or three tradesmen were among the victims. He claimed that by knowing the general lie of a town and the conditions of its poorer dwelling-houses, he could postulate the habitat and haunts of infectious diseases. He believed in the common origin of zymotics in sanitary neglect—"that smallpox follows on much the same lines as typhus, so does scarlatina, but with wider deviations as to classes of cases and conditions of persons." Sutherland and Galton, he added, had shown that in Malta plague, cholera, smallpox, and anthrax had in different years been localised in the same squalid quarters. The propagation of fever he traced largely to untrapped drains; and the use of efficient traps and glazed earthenware self-cleansing pipes was early advocated by Chadwick. He had been brought up in the belief that epidemics were largely "climatorial" in causation, but he emphasised the fact that they were "largely communicable by infection." He urged the prompt isolation of infected persons in a well-ventilated chamber, so as to "let a current of air pass through the room and over the patient; to observe all the details of regulations as to cleanliness of the patient and the articles of clothing and furniture, and the removal of excreta." He enunciated precise rules for the sanitary construction of dwellings and hospitals, laying special stress on ample cubic space to get rid of "vitiated, phthisis-producing air, and (if the crowding is intense) fever-producing air." Personal cleanliness as a prophylactic against infectious disease was also accentuated. He said, "If a great epidemic were to occur again, I would proclaim and enforce the active application of soap and water as a preventive. I have had frequent opportunities of observing this plan as a factor of sanitation," and he proceeded to cite examples.

Chadwick's Conclusions.

After a careful examination of the enormous amount of evidence which he had collected, Chadwick thus summed up his conclusion of the whole matter: "That the various forms of epidemic, endemic, and other diseases are caused or aggravated, or propagated, chiefly amongst the labouring classes by atmospheric impurities produced by decomposing animal and vegetable substances, by damp and filth, and close and overcrowded dwellings That such disease, whenever its attacks are frequent, is always found in connection with the physical circumstances above specified, and that when these circumstances are removed by drainage, proper cleansing, better ventilation, and other means of diminishing atmospheric impurity, the frequency and intensity of such disease are abated, and where the removal of the noxious agencies appears to be complete, such disease almost entirely disappears. That cases of smallpox, of typhus, and of others of the ordinary epidemic occur in the greatest proportion in common conditions of foul air, from stagnant putrefaction, from bad house drainage, from sewers of deposit,

from excrement-sodden sites, from filthy street surfaces, from impure water, and from overcrowding in private houses and in public institutions. That the entire removal of such conditions by complete sanitation and by improved dwellings is the effectual preventive of diseases of these species, and of ordinary, as well as of extraordinary, epidemic visitations. That when such diseases continue to occur their spread is best prevented by the separation of the unaffected from the affected, by home treatment if possible, if not, by providing small temporary accommodation; in either case obviating the necessity of removing the sick to a distance, and the danger of aggregating epidemic cases in large hospitals, a proceeding liable to augment the death-rates during epidemics."

Chadwick saw the urgent need of a radical reform in our local government system before any real advance on the lines he desiderated could be made. He urged the unification of local government services, specially in the metropolis, and he laid it down as a "sanitary axiom that the duty of carrying fouled water *out* of houses and *out* of towns, clear of the sites, constantly through self-cleansing channels, should, with the duty of carrying water *into* houses, devolve upon one and the same authority, and that such authority should be a competent and responsible public one."

The Municipal Corporation Act of 1835 was innocent of any sanitary intention, no duties or powers in regard to housing were conferred on local authorities for another 20 years, and the country at large waited till the 'seventies for urgently needed public health legislation, although certain towns, such as Liverpool, under private Acts, had appointed medical officers of health in the 'forties of last century. It was indeed through the Poor-law and especially its Central Board that sanitary reforms were then promoted, in default of available municipal authorities, especially in rural districts.

Although Chadwick's three-volume report was published in 1842, it was not until confirmed by the Health of Towns Royal Commission in its two reports of 1844 and 1845, and after two ineffectual attempts at legislation in 1846 and 1847, that the Public Health Act of 1848 and the Nuisances Removal and Diseases Prevention Act of the same year reached the Statute-book.

In 1847, after the dissolution of the first Poor-law Board, Chadwick had been placed on a Royal Commission to inquire into the sanitary condition of London. It exposed the lack of unity in metropolitan administration, with its seven different Commissions of Sewers and 100 different paving authorities, its competitive water-supplies from unfiltered river water, purveyed by profit-earning companies on the intermittent system, its open or stagnant sewers, and innumerable cess-pools.

The Public Health Act of 1848 was adoptive only, did not apply to London, and was limited in duration (unless renewed) to a period of five years, nor did it give effect to all that Chadwick desired, but it nevertheless for the time being stabilised and strengthened the General Board of Health with Earl Shaftesbury (at that time Lord Ashley) as unpaid chairman, and Chadwick, and later Southwood Smith, as its paid members. It was efficient, economical, assiduous. It applied strong action and stimuli from headquarters to lethargic local authorities and, proceeding by provisional orders rather than by private Bills, it gave umbrage to Parliamentary agents whose emoluments were thereby reduced. Walter of *The Times* renewed hostilities and opposed the metropolitan works of the Board in association with the Commission of Sewers. Hudson, the railway king, and Toulmin Smith and Joseph

Hume joined in the game of baiting the Board and chastising Chadwick as the chief offender. The cry of "Centralisation" was raised, the dictatorial edicts and doctrinaire policy of the Board were denounced by the "practical men" who were content that sleeping dogs should be permitted to lie and sanitary neglect continue as ever of old. Lords Shaftesbury and Carlisle, and in the Commons Lord John Russell, endeavoured to shield Chadwick from his traducers. To him were attributed all the sinister designs of the Board against self-complacent Bumbledom and the sturdy apologists of "the wisdom of our ancestors." The wags declared that under the Chadwick régime "it was a perpetual Saturday night when Master John Bull was scrubbed and rubbed and small tooth-combed till tears ran down his cheeks, his teeth chattered and his fists were clenched with worry and pain." Matters came to a crisis in the summer of 1854, when all the disaffected interests became vocal in the Commons, and on July 31 a combined attack on the proposal to renew the Act of 1848, with its General Board of Health, resulted in the defeat of the Government by nine votes in a small House at a morning sitting.

Chadwick Deposed.

The old Board of Health was thus knocked on the head, a new Ministerial body replaced it and paved the way for variations in policy, while Chadwick at the age of 54 was relegated to private life on a pension of £1,000 a year. In their final report to Lord Palmerston the Board presented their apologia, and no impartial reader of it at this distance of time can fail to appreciate the immense impetus given to sanitary reform in the quinquennium 1848-54 by Shaftesbury, Chadwick, and Southwood Smith.

Shaftesbury, in his diary, records his chagrin at "being turned off like a piece of old lumber. Such is public service! Some years hence, if we are remembered, justice may be done to us, but not in our lifetime." There was much jubilation amongst the triumphant reactionaries—they said "England wants to be clean, but not to be cleaned by Chadwick," and *The Times* wrote "Æsculapius and Chiron, in the forms of Mr. Chadwick and Dr. Southwood Smith, have been deposed and we prefer to take our chance of cholera and the rest than be bullied into health."

Sir John Simon, who became medical officer of the new Board in 1855, and who introduced a different school of thought and pathological doctrine, nevertheless writing 40 years afterwards tells how Chadwick, who merited the reformer's crown of laurels, became the best abused man of his time. He admits that he may not have been richly endowed with Pitt's sovereign virtue of patience, but he duly adds "patience under sufferings of one's own, and patience towards the sufferings of others, are not equal measures of magnanimity. Mr. Chadwick, beyond any man of his time, knew that large fresh additions of human misery were accruing day by day under the then almost universal prevalence of sanitary neglect; and the indignation which he was entitled to feel at the spectacle of so much needless human suffering, is a not ignoble excuse for such signs of over-eagerness as he may have shown . . . To him this nation unquestionably owes that our statesmen of those times were first awakened to the duty of caring for the public health, and that the first of our modern legislative endeavours were made to bring health under the protection of the Law." Simon testifies to Chadwick's "unique relations to the beginnings of British sanitary reform," and records his unfailing respect for him as "first leader in so great a cause."

Chadwick's Later Work.

During the 36 years which remained to Chadwick after the closure of his official life, he pursued, with little evidence of resentment and with the same ardour, the cause of sanitary and social reform. Pamphlets, presidential and other addresses, reviews and critiques came from his pen at frequent intervals, and these with his voluminous official reports cover a period of 60 years of continuous labour. These *disjecta membra* of what would compose a considerable library were collated and condensed by Richardson. Some 26 works of Chadwick's, including some cross references, appear in the British Museum catalogue. A yet more representative collection contained in some dozen volumes of pamphlets, essays, etc., are to be found in the library of University College. One can, in the time at my disposal, only touch lightly on these varied activities.

Chadwick co-operated with Miss Nightingale during and after the Crimean War in the reform, or rather the inauguration of military hygiene. He opposed taxes on knowledge and condemned the "fiscal rapacity" that restricted journalism and checked advertisement. He was a zealous advocate of competitive examinations for admission to the public service and the stout opponent of political patronage. One recalls the story of Melbourne when one of his ministers confessed to him that having to choose between two candidates for a valuable office, one a stranger and the other a relative, he proposed, *ceteris paribus*, to give it to his relative. "So should I," said Melbourne, "and damn *ceteris paribus*." He discussed the psychological and physiological limits of mental labour, the feeding of school-children, the physical and moral advantages of drill in school, and supported the volunteer movement. He was a member of the first London School Board, advocated baths in schools and adequate playgrounds. He emphasised the danger of spread of infectious diseases by schools and looked to physical training and sanitary surroundings "to banish epidemic and eruptive diseases." He was strongly opposed to corporal punishment, he condemned payment by results and the rigidity imposed by the code. He concerned himself with the construction of schools, suggested warming through hollow-tiled floors, advised double-paned windows, and left-lighting.

In a supplementary report in 1843 he had exposed the perils of interment in city churchyards, of delayed burial through lack of mortuaries to which the dead might be removed, pending interment, out of crowded homes, and endorsed Sir Christopher Wren's advocacy of cemeteries in the suburbs of towns. At Mr. Gladstone's suggestion he investigated and reported on the extension of cheap postal telegraphy.

Many of his addresses and essays were in French, which he wrote with ease; in 1864 he met Napoleon III in Paris, who asked him what he thought of his improvements and he replied: "Sir, Augustus found Rome brick and left it marble; if your Majesty having found Paris stinking will leave it sweet you will more than rival the first Emperor of Rome." Common lodging-houses, as he found them, he described as schools for juvenile crime and vice and fertile agencies in propagating infectious disease, and recommended that they should be both licensed and inspected. From 1883-1889 he was President of the Sanitary Inspectors' Association, and his addresses were rightly regarded as among the chief Sanitary events of the year.

Such varied instances as I have cited by no means exhaust the catalogue of his activities; as Richardson remarks, "his universality is unique." "He is found dealing with building construction as if he were an architect, with engineering as if he were an engineer. In treating of diseases he might often be taken for a physician, in matters

of administration a politician, while he is always in his right place as a statistician." His wide knowledge of Government departments and their ways had led him to distrust the methods by which legislation is initiated and conducted, and in 1859 he read a paper on the subject before the Society for the amendment of the law. He condemned what he called the close Cabinet method of preparing Bills as well as Select Committee procedure, preferring open and deliberate inquiry by Royal Commissioners specially appointed for their competence and experience, or by a Committee of the Privy Council assisted as regards local inquiries by Sub-Commissioners. J. S. Mill and Sir James Stephen were supporters of these proposals. A little coterie of "friends in council" with Chadwick as the centre and Mill, Rowland Hill, Lyon Playfair, and Neil Arnott as members, met at each others' houses and were very active in the 'forties and 'fifties of last century in incubating plans for administrative reform and social betterment.

Parliamentary Candidature.

Richardson and the National Dictionary of Biography state that in 1867 Chadwick unsuccessfully contested London University for Parliament. He did indeed write an address to the electors, which was backed by J. S. Mill, but he did not go to the poll. I find from the Parliamentary Poll Book that Mr. Robert Lowe was returned unopposed in 1867 as the first member for the seat, which he retained for 12 years, and which Disraeli facetiously asserted he had created and predestinated for that erratic and unbeloved politician. Chadwick was, however, induced to come forward in 1868 for Kilmarnock Burghs and was beaten by the Hon. E. P. Bouverie by 2,892 to 1,148. The statement which he afterwards published in reference to his defeat betrayed his naïve and chagrined disillusion at the fickleness of electors, the delusiveness of public meetings, and the deceitfulness of political promises. He had indeed experienced a previous Parliamentary reverse at Evesham in 1859.

He also at one time coquetted with the electors of Southampton and of Middlesex, and to the latter issued an address intimating his willingness to come forward if assured of adequate backing, while disclaiming any intention of canvassing, attending meetings, or embarking on any expenditure beyond the official fees. The address dealt at length with metropolitan drainage, burial boards, extravagance and corruption in local administration, and advocated physical, educational, and moral improvement of the labouring classes and the "cutting up of political patronage by the roots." Such matter of fact doctrine and high ideals were, however, not calculated to split the ears of political groundlings. In short, you could not make a political hack or a safe whip's man out of Edwin Chadwick. He was ill-adapted for the platform, especially the political platform—in truth, he was no orator. Even the friendly Richardson wrote: "When he first gets up to speak without book he looks an orator; but a few moments dispel the illusion; he bends forward, he speaks in a low voice, he disputes some points logically, then falls into confusion, then recovers his strain, goes back, and, in fact, if he speaks long, as he is wont, he wearies the listener, and takes sometimes the points out of his own arguments."

His Political Philosophy.

In 1885, five years before his death, Chadwick sought to summarise and generalise the principles which had inspired his life's work and he published a collection of papers entitled "On the Evils of Disunity in

Central and Local Administration" in which he took for his text the maxim of Bentham, "always to do the same thing in the same way, choosing the best, and always to call the same thing by the same name." These papers betray that diffuseness, repetition, and unattractiveness of style which his kindly biographer has deplored. He contended for larger areas than the parish for local administration, a responsible central supervisory authority, detailed administrative work to be discharged by competent salaried officers. He indicated how his principles which had inspired the Poor-law Amendment Act (1834) and his reports on the sanitary condition of the labouring population of Great Britain should be applied in the case of water-supply, smoke abatement, fire prevention and extinction, abattoirs, disposal of the dead, gas-supply, slum clearances, police administration, etc., and adumbrated the appointment and duties of a "Minister of Education" and a "Minister of Health." In the matter of the government of London he claimed that "the attainment of complete unity of administration would open up prospects of grievously needed relief"; while recognising that Sir Benjamin Hall's Act of 1855, which set up the ill-fated Metropolitan Board of Works, was a step in the direction of unification, he deplored the "vestralisation" whereby it was prejudiced owing to constitution by indirect election. It was partly to this congenital defect that Lord Herschell's Commission of 1888 traced its undoing and unhallowed end.

Chadwick in this same work declaimed against the "jobocracy of vestrydom"; many vestrymen were, he declared, "persons whose time is worthless, who are ignorant and wasteful or obscure persons who have some sinister interests to promote." Their paid officers, he said, were "under the necessity of having to work down to ignorance instead of up to scientific administrative principles." Slum-owners in some cases "got possession of the local boards of sanitary authorities," and as the Royal Commission on Housing subsequently reported "many of those whose duty it was to see that a better state of things was effected were those whose interest it was to keep things as they were."

Like some of his contemporaries, Chadwick regarded drainage as constituting a large, perhaps too large a part of practical sanitation. In 1885 he still clung lovingly to the "separate system" as he called it, epitomised in the phrase "the rainfall to the river and the sewage to the soil," and he mercilessly condemned the "combined system" adopted by that "vestral authority" as he stigmatised it, the Metropolitan Board of Works.

Basing himself on Farr's vital statistics, he maintained that "good sanitary measures under unity" might secure for the whole of the metropolis a death-rate not exceeding 11 per 1,000, which then only obtained in a few favoured West End districts. When Farr began his labours a death-rate of 25 per 1,000 was not uncommon in London; in 1921 we have seen it at 12.5 per 1,000.

In exemplification of his gospel of "Unity" Chadwick recalls that by the Poor-law Amendment Act, which he fathered, some 16,500 parishes were condensed into 660 unions, with great saving of unnecessary and wasteful expenditure and a marked increase of efficiency in administration. He proudly quotes the exclamation of Mr. Gladstone, "What would have become of the Poor-law Amendment Act, which is perhaps the greatest reform of this century, if it had been entrusted to the local authorities of that day!" To those who charged him with being "all for centralisation" he retorted, "I am on principle for extensive de-centralisation by well-arranged local consolidation, for

superior self-government over that which now exists a true representation of the best local intelligence under unity in the place of disunity and local ignorance."

He repudiated the soft impeachment of being a benevolent despot; if he aimed at centralisation as against the corrupt and inefficient local self-government he had encountered, it was, he said, "centralisation for the protection of liberty" If he condemned the *laissez faire* doctrine of those who claimed liberty for themselves and denied it to others it was because he held "Liberty is a right with a corresponding obligation to respect it. Liberty consists of the power of doing anything which does not hurt another."

Looking back from 1885 to his old battles of the 'forties and 'fifties, he reflects with sorrow rather than with anger or resentment on the "vote obtained under the combination of interests" which killed the General Board of Health, and sent him into a premature pensioned retirement. He recalls "the continued serious contraventions, which I was unable to withstand, of principles which were not understood," and how despite the "vexations and obstructions of half-knowledge," he had felt "constrained to go on" "for the sake of the gain to be obtained by other men after my time," and he added, "I do not regret."

His Friends and Co-workers.

If Chadwick had many enemies, whose names are mostly forgotten, he had also some devoted friends and coadjutors whose services to mankind are gratefully remembered. Let us recall some of these, who accepted the Chadwick school of thought and lent their invaluable support to the reforms he urged so insistently, often on deaf ears and shut imaginations. I have already alluded incidentally to some of them.

Dr. Southwood Smith (1788-1861) was a man after Chadwick's own heart. Born in 1788, at first a Unitarian minister teaching a universalist doctrine in Edinburgh, he later graduated M.D. at that University. From 1824 to 1839, physician to the London Fever Hospital, spoke with authority on infectious diseases. If he were open to Simon's charge of "immensely under-rating the independent importance of morbid contagia," he displayed "a perfectly proper zeal against filth." He wrote and spoke with equal felicity, was an excellent anatomist, and I have already referred to his services to his master Bentham both before and after the latter's demise. He was the author of "The Philosophy of Health" and "Illustrations of the Divine Government," and contributed much of the distinctively medical portions of Chadwick's reports.

Dr. William Farr was born in 1807 and died in 1883. It is not without interest to note that the combined ages of Farr, Southwood Smith, and Chadwick spanned nearly two and a half centuries. Farr was described by those who knew him as "a man with the liveliest intelligence, with a mind revelling in generalisation, and a master of methods by which arithmetic is made argumentative." He made Descartes' "Discours de la Méthode" his model. He recognised the limitations as well as the virtues of statistics, and would not have disputed the epigram that while "figures cannot lie, liars sometimes figure." He was the first to essay lectures on hygiene, was a man of large and liberal views, a glutton for work, of great personal charm, and of genial disposition.

Dr. Kay, afterwards Sir James Kay-Shuttleworth (1804-1877), wrote on the moral and physical condition of the working classes, studied

typhus in Edinburgh and cholera in Manchester and helped to develop the system of national education. Kay, Southwood Smith, and Neil Arnott were the first medical men to be enlisted by Chadwick into the national service of public health. Kay-Shuttleworth was a great Liberal and, shall I blush to say it, a great Free Trader?

Yet another co-worker and contemporary of those early Victorian days stands out pre-eminently as a sanitary reformer of the Chadwick type; one whose heroic ministrations initiated military hygiene, and brought to the succour of the sick and wounded an informed gentleness and a human efficiency which have placed the name of Florence Nightingale second to none among the venerated of her sex. It was Chadwick who assisted and encouraged her in drawing the moral of the Crimean muddling and in applying sanitary science to the army alike in peace and war. It was he who urged her to enlist the support of Kinglake and helped to popularise her "Notes on Nursing" with her plea for household hygiene and for "ample ramparts of fresh air" against zymotic diseases. It was Chadwick, too, who counselled her to continue her labours after the death of Sidney Herbert—her "Master" as she called him. With John Stuart Mill and Chadwick she co-operated in Poor-law and sanitary reform, and when the former died of fever at Avignon in 1873 she reproached Chadwick for not having had regard to the sanitary environment of their mutual friend.

Another personality of true nobility, not indeed a medical man, but a might social reformer ever to be held in reverence and esteem, was linked with Chadwick and Southwood Smith, and less closely with the others I have named, in the work of the General Board of Health from 1848 to 1855—I mean the seventh Earl of Shaftesbury. That lofty and independent embodiment of *noblesse oblige* successively and not unsuccessfully laboured to improve our asylums, our factories, our slums, our ragged schools, and common lodging-houses. He worked as ever in the Great Taskmaster's eye, an evangelist indeed, and "the impersonation of the philanthropic spirit of the nineteenth century."

In Parliament Lord John Russell was for years Chadwick's champion and supporter, while sometimes a little perturbed by the sanitary reformer's disregard of so-called local authorities. Russell declared that the Poor-law Amendment Act had saved the country from great social evils, if not from social revolution, and Gladstone even spoke of it as "the greatest reform of the century." On another occasion Lord John Russell asserted that "there was no one to whose zeal and assiduity the country is more indebted than to Mr. Chadwick." It was Prince Albert who obtained for him a C.B. in 1848, but he did not receive the accolade until he was 89.

His Vindication.

I have attempted, as requested, though very imperfectly, to sketch "the life and doctrine of Sir Edwin Chadwick." Whatever the verdict of history may eventually be, he stands for solid achievement in the story of sanitary and social reform. Much that was at the time ridiculed as the vapouring of a visionary has become the veriest commonplace of daily sanitary administration. "The stone which the builders refused has become the headstone of the corner." By instinct a democrat and a devotee of reform, his ruthless pursuit of his "sanitary idea" arrayed against him the interests who shouted him down as an "autocrat." Yet he and his school of thought taught nineteenth-century England a very salutary lesson.

They did not seek the causes of pestilence in visitations of an offended Deity, nor in convulsions of Nature; nor did they set much store on epidemic constitutions of the air, or obscure telluric disturbances. They believed that they found in external physical conditions, largely removable and mostly the product of ignorance or neglect, the proximate antecedents of certain infections called zymotic. These were the nemesis of sanitary shortcomings, the evil fruitage of transgression of hygienic law, and in a sense, therefore, the penalty of moral mis-doing. They looked to personal and civic cleanliness, ample supplies of pure air and water and wholesome food, decent dwellings, adequate exercise, reasonable wages and hours of labour and leisure, and the prompt removal of filth and effete material as important factors of national and individual health, and as specially potent against the invasion of pestilence which aforetime walked in darkness, but whose causation was now made manifest by the dry light of science. Further, they believed in the common origin, in filthy conditions, of many so-called specific diseases; they believed in their generation *de novo* by such antecedents, as well as by their propagation through infection. They believed in the mutability of specific diseases, under the influence of favourable or unfavourable soil, holding that the soil must be studied no less than the seed, and that even though certain vegetable or animal particles or ferments stood in some sort of causal relationship to them, the predisposing causes were not less important, and indeed could hardly be overrated. In practical application they sought to influence for good the environment of mankind, making the battle-ground with disease *without* rather than *within* the uninfected body, setting great store on the natural vigour of the healthy body itself as the best security against its successful invasion by inimical agencies.

This, then, was the wholesome doctrine inculcated by Chadwick and his school. "Man's mere opinions must ever be liable to error. By the motives which sway his heart can he alone be judged"; and I venture to assert that any impartial student of the life work of Edwin Chadwick will rise from his task with the conviction that the motives which swayed his heart were the disinterested love of his fellow man and the devotion of the highest gifts to the amelioration of his lot and the betterment of his life.



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